Application No. 10/587,438 Amendment dated September 21, 2007 Reply to Office Action of June 21, 2007

REMARKS

Claims 1-3 and 6-7 are now pending in the application. The amendments to the claims contained herein are of equivalent scope as originally filed and, thus, are not a narrowing amendment. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-4 and 6-7 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Takahashi et al. (JP 2003-121999). This rejection is respectfully traversed.

Takahashi et al. discloses, as an acid generator, an onium salt comprising a sulfonium salt represented by the general formula (1) as a cation component and a sulfonate represented by the general formula (II) as an anion component.

$$\begin{array}{c|c} R_{7a} & R_{8a} & R_{1a} \\ R_{6a} & S & R_{3a} \\ R_{5a} & R_{4a} \end{array} \qquad (I)$$

4 GAS/syr

Comparing the acid generator according to the amended claim 1 of the present application with that disclosed by Takahashi, reveals a different in the cation components thereof. That is, while the cation component is an iodonium salt in the amended claim 1 of the present invention, in the disclosure of Takahashi, the cation component is a sulfonium salt represented by the general formula (1).

Iodonium salts are preferable in view of their excellent balance in DOF (depth of focus), linearity characteristics, sensitivity, and pattern shape common to all of the isolated L/S and hole patterns. (Page 4 of 17, line 19 to 25 in the Specification)

Claims 1-3 and 5-7 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Cameron et al. (US Pg-pub 2003/0027061). This rejection is respectfully traversed.

Cameron et al. discloses an acid generator that is an onium salt comprising an iodonium salt as a cation component and $R^3(CR^4R^5)CF_2SO_3$ as an anion component $(R^3$ is an optionally substituted adamantly, optionally substituted isobonyl, etc.; R^4 and R^5 are each independently selected by hydrogen, optionally substituted C_{1-20} alkyl, optionally substituted C_{1-20} alkoxy, or optionally substituted carbocyclic aryl.).

Comparing the acid generator according to the amended claim 1 of the present invention with that disclosed by Cameron, reveals a difference in the anion components thereof. That is, while the <u>anion component has the structure of $-CH_2SO_3$ in the amended claim 1 of the present invention, in the disclosure of Cameron, the anion component has the <u>structure of $-CF_2SO_3$ – containing fluorine atoms.</u></u>

Comparing Example 1 and Comparative Example 1 of the present specification clearly highlights that while no roughness was observed in the resist pattern when the acid generator of the present invention was used, in the disclosure of Cameron, noticeable roughness was identified when using the acid generator containing fluorine atoms in the anion component thereof.

5

GAS/sjr

Docket No.: 9084-000004//NP

Application No. 10/587,438

Amendment dated September 21, 2007

Reply to Office Action of June 21, 2007

"Roughness" refers to the presence of unevenness on the side of a resist line pattern. (Page 3 of 17, line 2 to 4)

The present invention has been achieved based on the finding that the acid generator comprising a combination of a specific cation component and a specific anion component selected from combinations of numerous cation components and numerous anion components is extremely effective in view of eliminating roughness of the resist pattern and also excellent in the balance of DOF (depth of focus), linearity characteristics, sensitivity and pattern shape common to all of the isolated, L/S and hole patterns. The constitution and effect of the present invention is in no way disclosed or suggested in either of the inventions of Takahashi and Cameron.

Therefore, the present invention has novelty.

Furthermore, although the Examiner rejected claims 1 through 7, we believe that this is an error and the rejection should be based on claims 1 through 6.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

6

GAS/sj:

Application No. 10/587,438 Amendment dated September 21, 2007 Reply to Office Action of June 21, 2007

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 08-0750, under Order No. 9084-000004//NP from which the undersigned is authorized to draw.

Dated: Sept. 21, 2007 Respectfully submitted,

Docket No.: 9084-000004//NP